

DISTRIBUTOR-APPLICATOR WITH A TWO-COMPARTMENT BODY  
TYPICALLY FOR MASCARA

Field of the invention

The invention relates to the field of distributors - applicators for cosmetics, and typically distributors - applicators for fluid cosmetics such as mascara.

5   State of the Art

Many distributors - applicators for fluid cosmetics comprising an applicator such as a brush, for example like that described in European application No. 94304753.0, are already known.

10       Typically, these distributors - applicators comprise:

- a body containing the said fluid cosmetic with a typically threaded neck,

- a threaded cap closing off the said neck, the  
15   said cap being fixed to a brush that dips in the said fluid cosmetic when the distributor - applicator is typically closed by the said cap, a rod fixing the said brush to the said cap.

Moreover, the neck is typically provided with a  
20   wiper ring in order to limit the quantity of fluid cosmetic entrained by the said brush every time that the said brush is removed from the said body.

Problems that arise

Distributors - applicators according to the state of the art, typically mascara distributors - applicators, are used to distribute and apply a determined fluid product, typically a mascara.

The trend in face make-up, and particularly eye make-up, is towards a search for special effects in terms of colour and in terms of the texture of the deposit formed after application, which typically requires the use of several products. Therefore, the applicant searched for a distributor - applicator capable of packaging at least two separate products so as to halve the number of separate cosmetic packagings, which is a large advantage in practice.

Secondly, in the field of packaging for cosmetics, there is a continuous need to replace distributors - applicators, since the market life of packaging for a make-up product is relatively short.

Thus in some cases, renewal may apply to the application means, typically the brush, in the distributor - applicator. In other cases, it may apply to the addition of new functions, for example as illustrated in European applications No. 94306189.5 and No. 01420087.7.

Therefore, this invention is aimed firstly at renewing the applicators - distributors range, and secondly offering new functions to users.

Description of the invention

According to the invention, the axial distributor - applicator designed to contain a cosmetic, typically a mascara, comprises a body forming a typically cylindrical and longitudinal cavity with a height H along its axial direction containing the said cosmetic, and in which there is an opening, the said body being provided with a lateral skirt, fixed with a rim or head at its so-called top end containing a typically threaded neck surrounding the said opening, and typically forming a bottom at its so-called bottom end, and an applicator comprising a typically threaded cap forming a means of gripping the said applicator and intended to cooperate with the said rim or the said neck of the said head, a rod or a longitudinal support and an application means, typically a brush consisting of one or several rows of bristles, the said rod being fixed to the said cap at one of its ends, and fixed to the said application means at its other end, such that the said application means, typically at the contact of the said product typically when the said cap closes off the said opening of the said body, collects some of the said product and after separation of the said applicator from the said body, typically including an axial translation, enables application of the said collected product on a support, and is characterised in that:

a) the said body comprises a means of forming an axial partition in the said cavity so as to form an axial sequence of N staged compartments in the said cavity

denoted  $C_1$  to  $C_N$ , where  $N$  typically varies from 2 to 4, each compartment  $C_i$  with height  $H_i$  containing the said cosmetic(s)  $P_i$ , the said cosmetic(s)  $P_i$  typically being different from the said cosmetic(s)  $P_{i+1}$  in compartment  $C_{i+1}$  located above it, and the said cosmetic  $P_i$  being a typically fluid product,

b) the said means of forming the said axial partition comprises  $N-1$  separation means  $S$ , the said separation means  $S$  being denoted  $S_i$ , where  $i$  is equal to not more than  $N-1$ , between two successive compartments  $C_i$  and  $C_{i+1}$ ,

c) each compartment  $C_i$ , where  $i > 1$ , comprises a volume forming a storage means for the said product  $P_i$ , and also a complementary or free volume forming a communication means, such that the said application means can access each of the said compartments  $C_i$ , where  $i' < i$ , in order to collect the said corresponding products  $P_{i'}$ .

Thus, the body of the distributor-applicator according to the invention comprises a sequence of staged compartments  $C_i$  along the axial direction of the said body, each compartment  $C_i$  forming a separate cavity that can contain a separate product  $P_i$ , each compartment and separate cavity opening up directly or indirectly to the outside so that each separate product  $P_i$  can be collected, typically using the said application means, and withdrawal of the said application means possibly collecting all separate products  $P_i$  for application purposes.

The invention thus solves the problems that arise. Firstly, the distributor-applicator is capable of offering several products  $P_i$  in the same packaging including a typically fluid product  $P_1$ , such that the user  
5 has different products  $P_i$  in the same packaging with one of these products typically being a fluid product, for example a mascara.

Moreover, it is clear that the distributor-applicator according to the invention considerably  
10 modifies the traditional distributor-applicator itself and traditional make-up, to the extent that it is possible to consider that the distributor-applicator according to the invention forms a new generation of distributors-applicators.

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#### Description of the figures

All the figures relate to distributors-applicators (1) or distributor-applicator elements according to the invention. Unless mentioned otherwise, the figures are  
20 views or axial sections along the centreline of the distributor-applicator (1) according to the invention.

Figures 1a to 1c correspond to a method of the invention in which the cavity (20) of the said body (2) forms two compartments (200)  $C_1$  and  $C_2$  in which the said  
25 separation means is a radial projection (41) in which the central orifice (40) forms a wiping means and that can be closed off by a sealing means (33) forming part of the applicator (3).

Figure 1a shows the closed distributor-applicator (1).

Figure 1b represents the applicator (3) alone.

Figure 1c represents the applicator (3) partially engaged in the body (2).

Figure 1d shows a partial view of a variant of the said radial projection in which the said central orifice comprises a wiping insert.

Figures 2a to 2f show another embodiment of the invention, also with two compartments (200) in which the said separation means (4) forms a part separate from the said body (2), an add-on part (46) that comprises a radial part (460) and a tubular part (461) in which the said body (2) comprises a removable head (22') so as to be able to insert the said add-on part into the said body, and in which the said application means comprises a brush with height  $> H_1$ .

Figure 2a shows the said body (2) comprising the said add-on part (46), the said add-on part being a section A-A in Figure 3a.

Figure 2b shows the said applicator (3).

Figure 2c represents the said body (2) closed by the said removable head (22'), typically heat-sealed or click-fitted to the skirt (24) of the said body (2).

Figure 2d represents the said distributor - applicator (1), the said body (2) being closed by the said applicator (3).

Figures 3a to 3b illustrate the embodiment of the separation means (4) shown in Figures 2a to 2d, in which

the said add-on part (46) comprises a perforated tubular central part (44) comprising a sequence of axial rods (440) separated by axial spaces (441).

Figure 3a is a sectional view along section A-A of the add-on part (46) in Figure 2c.

Figure 3b is a side view of the add-on part (46).

Figure 3c corresponds to Figure 2b, and shows an applicator (3) provided with two different diameter brushes (320, 320'), the bristles of the large diameter brush being designed to pass between the axial rods (440).

Figure 3d shows another application means (32) comprising a brush (320) and a complementary means other than a brush (321) typically formed from an absorbent material. According to the axial configuration shown in Figure 3d, the said brush (320) forms the application means  $A_2$ , while the complementary means forms the application means  $A_1$ .

Figures 4a and 4b show a variant of the embodiment in Figures 3a and 3b. In this variant, the said body (2) comprises a sequence of three compartments (200) using two separation means (4) of the type of those shown in Figures 3a and 3b.

Moreover, the said application means (32) comprises two brushes (320, 320') with different diameters, the large diameter brush having a height corresponding approximately to the accumulated height of the two upper compartments (200).

Figure 4a represents the said application means (32).

Figure 4b represents the said distributor-applicator with three compartments (200), the two top compartments  
5 being formed using separation means (4) of the type shown in Figures 3a and 3b.

Figures 4c and 4d show a variant of Figure 4b in which firstly the two separation means (4) are separate, the upper separation means being similar to the  
10 separation means in Figures 2a and 2c, while the intermediate separation means are similar to the means in Figures 3a and 3b, and in which secondly the said body (2) does not include a head (22), the said skirt (24) having a typically threaded upper end (240) cooperating  
15 with the said cap (30) of the applicator (3).

Figure 4c shows the said distributor-applicator (1) in a half open position with the said applicator (3) partially separated from the said body (2), while Figure 4d shows the said applicator-distributor (1) closed.

20 Figures 5a to 5g show a variant of Figures 2a to 2e in which the said separation means (4) is formed by a radial projection (41) and in which the said product (5) is a solid product (51) forming an annular body (510) with a central opening (511).

25 Figure 5a, similar to Figure 2a, represents the said body (2) provided with the said extended radial projection (42) forming a central orifice (40) before assembly of the said removable head (22').



Figure 5b shows the said body (2) after the said solid product (51) has been added, shown in section in Figure 5e and in perspective in Figure 5f.

Figure 5c shows the said body (2) after the said solid product (51) has been inserted and after assembly of the said removable head (22').

Figure 5d shows the corresponding said distributor-applicator (1) closed.

Figure 5h shows a variant of the removable head (22') in Figures 5c and 5d, in which the said head comprises a means of wiping the said brush (320).

Figures 6a and 6b show two separate embodiments of separation means (4), in the case in which the said body comprises a narrow support rim (244) that fixes the said separation means formed by a "U"-shaped add-on part (46) forming a dish (47) on the left part of Figures 6a and 6b, or an "L"-shaped add-on part (46) as shown on the right part of Figures 6a and 6b, in the axial direction.

Figure 6a shows an axial sectional view of the distributor - applicator (1) with the said applicator (2) partially offset from the said body (2) in the axial direction, the said application means (32) comprising a brush (321).

Figure 6b shows a top view of the two embodiments of the add-on part (46, 46').

Figures 7a and 7b are similar to Figures 6a and 6b and show variants of distributors according to Figures 7a and 7b. They are different in that the said body does not include a radial projection (41), and in that the said

separation means comprises a lower tubular part (462) for axial assembly of the said separation means (4) to the said body (2), and an upper tubular part (461) connected to a radial part (460), forming a reservoir for the said product  $P_2$ .

Figure 7a is an axial sectional view of a variant in which the said separation means (4) consists of a single add-on part (46).

Figure 7b is a top view of the said separation means formed by two identical add-on parts (46, 46') that are symmetric about a plane, these two parts (46, 46') forming two separate containers or reservoirs for two products  $P_2$  and  $P_2'$ .

Figure 8 shows another embodiment of the invention, in which the said body comprises two symmetric cavities on each side of the bottom (25), each cavity comprises two compartments (200), the top compartment comprising a separation means (4) of the type shown in Figures 2c or 3b, while the lower cavity comprises a separation means (4') similar to that shown in Figure 5a or 5b.

Figures 9a to 9d show another embodiment of the invention similar to that shown in Figure 7a.

Figure 9a is similar to Figure 7a and differs from it in that the said body (2) comprises three compartments (200) formed by a stack of dishes (47).

Figures 9a to 9d each show the three dishes (47) in Figure 9a.

Figures 10a and 10b are partial axial sectional views representing other embodiments of the invention, in

which the said lower compartment  $C_1$  is closed off by a valve (6) and in which the said head, not shown in the figures, is a removable head (22').

On the embodiment shown in Figure 10a, the said body  
5 (2) has a moving or removable bottom (25), the said separation means (4) forming a single-piece part with the said skirt (24) comprising an extended radial projection (42) and a vertical projection (43).

The valve (6) was assembled to the radial projection  
10 (42), typically by gluing. It cooperates with the rod (31) of the applicator (3) in a sealed manner.

On the embodiment shown in Figure 10b, the skirt  
(24) comprises a lower shoulder (241) assembling the separation means (4) formed by an add-on part (46)  
15 forming a radial part (460).

In Figure 10b, the valve (6), that was also shown as a bottom view, was fixed to the central orifice (40) of the extended radial projection (42).

Figure 11a corresponds to Figure 10b, and differs  
20 from it by a variant for assembling the said valve (6) to the radial projection (42), and by cooperation of the separation means (4) forming an add-on part (46) that comprises only a radial part (460) with the skirt (24) provided with two click-fit ribs (242).

25 Figure 11b shows an application means (32) with a brush (320) shown in an axial section and a cross-section, the section of the said brush being round or oval.

Figure 11c is a partial view of the said body (2) with its separation means (4) formed by cooperation of two modular body portions (7) and (7') typically click-fitted together, the said portion of the lower body (7) forming the bottom (25) and the said portion of the top body (7') forming the said opening (32) - not shown in the figure.

#### Detailed description of the invention

According to the invention, and particularly as illustrated in Figure 1c, the said cavity (20) of the said body (2) may comprise two successive compartments (200), a lower compartment  $C_1$  with height  $H_1$  containing the product  $P_1$ , the said product  $P_1$  being a fluid product, and a top compartment  $C_2$  with height  $H_2$  containing the product  $P_2$ , the said lower compartment being contiguous with the said bottom at its lower part, the top of the said upper compartment  $C_2$  being contiguous with the said rim (243) or the said neck (220).

According to one embodiment of the invention illustrated for example in Figures 1a, 2a, 4b and 5a, the said separation means  $S_i$  (4, 4') may typically comprise a central orifice  $O_i$  (40) forming the said communication means between the compartments  $C_i$  and  $C_{i+1}$  and forming an axial passage for the said application means (32), the said separation means  $S_i$  (4, 4') delimiting the said compartment  $C_i$  near the top and thus forming a partition between the said compartments  $C_i$  and  $C_{i+1}$  of the said cavity (20).

The said separation means  $S_i$  (4, 4') of the compartment  $C_i$  may form a support for the product(s)  $P_{i+1}$  contained in the adjacent compartment  $C_{i+1}$  and located axially above compartment  $C_i$ .

5        With this purpose, the said separation means  $S_i$  (4, 4') of the compartment  $C_i$  may comprise a projection or a typically radial part (41, 42, 460).

Typically, the said projection or radial part (41, 42, 460) may form an extended radial projection (42)  
10       sufficiently large so that the said typically central orifice  $O_i$  (40) may be filled in or closed off by the said application means (32).

Thus, for example the central orifice (40) is filled in in Figure 1a, while it is closed off in Figure 6a. A  
15       more or less leak tight cooperation between the said application means and the said orifice (40) will be necessary, depending on the viscosity of the products  $P_i$  in particular, and  $P_i$  in general.

As illustrated in Figures 2a, 3b, 4c, 6a, 7a, 9a,  
20       10a, the said means of separation  $S_i$  (4, 4') of compartment  $C_i$  may comprise a part forming a radial projection (41) and a part forming a vertical or inclined projection (43), so as to form firstly a secondary cavity (26) typically capable of containing a fluid product, and  
25       secondly the said complementary or free volume (27) forming the said communication means.

As illustrated in these same figures, the said separation means  $S_i$  (4, 4') for  $i = 1$  can include a top central duct (44'), typically provided with a flared top

part (440') - see Figure 7a, and / or a bottom part through which the said application means can pass, the said top central duct (44') delimiting the inside of the said complementary or free volume (27) forming the said communication means.

In this case, the said duct is coincident with the said vertical projection mentioned above.

As illustrated in Figures 2a to 3b, and in Figure 4c (see separation means  $S_1$ ), the said vertical projection or the said duct may comprise or may form a perforated tubular central part (44), so as to form the said secondary cavity (26) that will typically contain the said product  $P_2$ , and such that the said application means (32) can collect the said product  $P_2$  particularly during translation of the said application means within the said complementary or free volume (27).

In this case, the said central open tubular part (44) may typically comprise several axial rods (440) forming axial spaces (441) between them through which the said rows of bristles of the said brush (320, 320') are free to pass and so as to collect the said product  $P_2$ . But it is possible that this open tubular central part forms a type of grid or equivalent means capable of typically containing the said product  $P_2$  in the said secondary cavity (26), while enabling collection of the said product particularly during translation of the application means within the said complementary or free volume (27).

According to one variant of the invention, the said orifice  $O_i$  (40) for  $i = 1$  may comprise or form a non-return valve or flap (6), the said valve or the said flap (6) being open typically when the said applicator (3) cooperates with the said body, the said application means then typically being in contact with the said product  $P_i$  for  $i = 1$ , and closed when the said applicator (3) is separated from the said body (2).

Thus, as illustrated in Figures 10a and 10b, the said separation means  $S_i$  (4, 4') for  $i = 1$  may form or include an elastic membrane comprising rims or adjacent lips (60) delimiting the said orifice  $O_i$  for  $i = 1$ , like a valve, the said lips (60) being capable of elastically and reversibly separating during the said axial displacement of the said applicator (3) so as to enable the said application means (32) to pass through the said orifice (40) so as to prevent or limit mixing of the said products (5) in two different compartments (200).

According to one embodiment of the invention illustrated in Figures 1a, 5a, 10a and 11b, the said separation means  $S_{i-1}$  (4, 4') may form or comprise a single-piece part (45) with the said body (2).

According to another embodiment of the invention illustrated in Figures 2a, 4b, 6a, 9a, 10b and 11a, the separation means may form or comprise an add-on part (46, 46') in the said cavity (20), typically fixed to the said body (2) by assembly or by click-fitting.

However, as shown in Figures 6a or 11a, the said separation means (4) may comprise cooperation of elements

(242, 244) forming a single block with the said body (2) with an add-on part (46, 46') in order to assemble and block the said add-on part in the said body.

As illustrated in Figures 1a, 5h, 10b and 11a, the  
5 said neck (220) and / or the said orifice  $O_i$  (40), typically for  $i = 1$ , may comprise or form a wiping means (8) of the said application means (32), so as to remove the excess amount of at least the said product  $P_i$ , typically the fluid product  $P_1$ .

10 In the case in Figures 10a to 11a, the said wiping means may also consist of a valve (6) with adjacent lips (60).

According to the invention, the said application means (32), typically a brush (320, 320'), may have a  
15 circular section, the said section being taken in a plane perpendicular to the said axial direction (10, 21) such that the said applicator (3) does not need to be oriented with respect to the said body (2) during the said translation.

20 However, cases arise in which the said application means (3) may have a non-circular section  $S$ , and a shape factor  $L/l$  equal to at least 2, where  $L$  and  $l$  are the largest and the smallest dimensions respectively, the said section being taken in a plane perpendicular to the  
25 said axial direction (10, 21) such that all or part of the said translation requires relative orientation of the said applicator (3) with respect to the said body (2).

Figure 11b diagrammatically shows the two types of brushes, with round and oval sections. Advantageously,



the said section S of the said application means (3) and the said orifice  $O_1$  (40) of the said separation means (4, 4') may be geometrically similar.

5 In general, the said applicator (3) may comprise a single application means A (32), the said rod (31) being sufficiently long so that the said application means (32) is in contact with the said product  $P_1$  contained in compartment  $C_1$  particularly when the said cap (30) closes off the said opening (23) of the said body (2).

10 In this case, as illustrated particularly in Figures 1a to 1c, the said application means A (32) may have a height typically equal to approximately  $H_1$ , and can fill in or close off the said orifice  $O_1$ .

15 The applicator (3) shown in Figures 1a to 1c comprises a sealing means (33) cooperating with the said central orifice (40) of the separation means (4) such that the said compartment  $C_1$  is closed off typically in a sealed manner when the said distributor - applicator is closed.

20 However, as illustrated in Figures 2b and 2d, the said applicator (32) may comprise a single application means A, with a height typically greater than  $H_1$ , so that it can come into contact with the said product  $P_1$  contained in the compartment  $C_1$  and with the said product  $P_2$  contained in the compartment  $C_2$  when the said cap closes off the said body, so as to have a zone  $Z_e$  called the remote zone on the application means after the said separation, including collected amounts of products  $P_1$  and

$P_2$ , and a zone  $Z_p$  called the near zone containing only collected products  $P_2$ .

As illustrated in Figures 3c or Figure 4a, the said applicator may comprise at least two application means  $A_i$  (32), typically two separate brushes (320, 320') mounted in series on the said rod (31) and possibly as many application means  $A_i$  as there are separate compartments  $A_1$  and  $A_2$  and typically two separate application means  $A_1$  and  $A_2$ , the said application means  $A_1$  being in contact with the said product  $P_1$  contained in compartment  $C_1$  when the said cap (30) closes off the opening (23) of the said body (2), and the said application means  $A_2$  being in contact with the said product  $P_2$  contained in the compartment  $C_2$  when the said cap closes off the opening (23) of the said body (2).

As illustrated in Figure 4b, the said separate application means  $A_i$  (32) may have an increased section in the direction from  $A_i$  to  $A_{i+1}$ , such that each application means  $A_i$  only collects the product(s)  $P_i$  contained in the corresponding said compartment  $C_i$ .

As illustrated in Figure 3d, the said applicator (3) may comprise two axially separate application means  $A_1$  and  $A_2$ , one forming a brush (320) based on bristles, and the other (321) not forming a brush and comprising a material, typically divided or cellular, capable of collecting a solid or a liquid.

In Figure 3d, the brush (320) forms the application means  $A_2$  while the other application means not including the brush (321) and formed from an absorbent material

forms the means  $A_1$  located above means  $A_2$  according to the convention used by which the smallest subscript corresponds to the axial position furthest from the said cap (30) or closest to the said bottom (25).

5        However, the invention includes the opposite arrangement in which the brush (320) forms the application means  $A_1$  and the absorbent material forms the application means  $A_2$ .

10        According to the invention, and as illustrated as an example in Figures 1a, 10a and 10b, the said rod (31), or possibly the said application means (32), cooperates with the said separation means (4, 4'), possibly due to a means (33) fixed to the said rod (3) or due to a means (6) fixed to the said separation means (4, 4') designed  
15        to close off the said orifice (40) in order to make at least one compartment (200) and typically the said compartment  $C_1$  leak tight, when the said cap (30) closes off the opening (23) of the said body (2).

20        Considering the structure of distributors-applicators (1) according to the invention, the said head (22) and / or the said bottom (25) of the said body (2) may form removable parts (22', 25') so that the said separation means  $S_i$  (4, 4') and / or the said products  $P_i$  can enter into the said cavity (20). A removable part  
25        means a separate part assembled to the skirt (24) of the body (2), these parts possibly being assembled reversibly, or more typically irreversibly.

      A distributor-applicator (1) with a removable head (22') is shown in Figures 2a to 2d, 4b, 5b. A

distributor-applicator (1) with a removable bottom (25') is shown in Figures 1a, 1c and 10a.

According to another embodiment of the invention illustrated in Figure 11c, the said body (2) and the said  
5 separation means are formed by axial assembly, typically by click-fitting or by gluing or heat sealing, of at least two modular body portions (7) and (7'), one comprising the said bottom (25) and the other comprising the said opening (23).

10 This method may be advantageous as an alternative to make distributors-applicators (1) according to the invention, particularly in the case of more complex shapes.

According to the invention, all or some of the said  
15 body (2) may be formed by a typically transparent moulded plastic material.

Another purpose of the invention consists of using the distributor-applicator (1) according to the invention for packaging several cosmetics  $P_i$ , at least one of the  
20 products  $P_i$  being a fluid product.

Preferably, the said fluid product may be a make-up product, and typically a mascara.

The said fluid product can usually be packaged in the said compartment (200)  $C_1$ .

25 The said products  $P_i$  (5), typically for  $i > 1$ , may comprise typically agglomerated solid products (51), the said solid products (51) typically forming annular or toroidal bodies (510), comprising a central opening

(511), allowing passage of the said application means (32).

The said products  $P_i$  (5), typically for  $i > 1$ , may also typically comprise unagglomerated solid products  
5 (52), the said solid products (52) typically forming particles or a powder with a high flow angle or coefficient.

The said products  $P_i$  (5), typically for  $i > 1$ , may also be fluid products (50), typically in the form of a  
10 liquid, paste or powder possibly with a low flow angle or coefficient.

According to the invention, the said lower compartment  $C_1$  of the distributor-applicator may be designed to contain a fluid product  $P_1$ , typically a  
15 mascara, while the said upper compartment  $C_2$  may be designed to contain a solid product  $P_2$ , typically in the form of a powder of spangles, so as to increase the quantity of solid material on the said application means, typically when the said product  $P_1$  is a mascara.

20

#### Example embodiments

Figures 1a to 11c form example embodiments.

The said body (2) and the said separation means (4, 4') were formed by moulding a thermoplastic material.

25 The applicators (3) were formed in the usual manner, the said cap (30) and the said rod (31) being made of plastic, the application means (32) itself being formed in a normal manner, the brushes (320, 320') being formed

by a cooperation of rows of bristles with a twisted metallic wire.

The distributor-applicator (1) according to Figures 1a to 1c corresponds to applications in which the product  $P_1$  (typically a mascara) placed in the lower compartment  $C_1$  and the product  $P_2$  placed in the upper compartment  $C_2$  may possibly partially mix together without any disadvantages.

The distributor-applicator (1) according to Figures 2a to 3b corresponds to the case in which the product  $P_1$  (typically a mascara) placed in the lower compartment  $C_1$  and the product  $P_2$  placed in the upper compartment  $C_2$  do not mix together, however the product  $P_2$  being collected by the brush (320) using the open central tubular part (44) of the said separation means. For example, the product  $P_2$  may be composed of a powder of spangles, such that the brush covered with mascara as it comes out of the compartment  $C_1$ , picks up spangles at the surface of the brush as it passes through the compartment  $C_2$ .

The distributor - applicator (1) according to Figures 4b to 4d comprises three compartments, compartments  $C_1$  and  $C_2$  corresponding to those shown in Figures 2a to 3b and the upper compartment  $C_3$  being accessed directly once the cap (30) of the applicator (3) is removed.

For example, a creamy, typically non-fluid product, could be kept in such a compartment.

The distributor-applicator (1) according to Figures 5a to 5d corresponds to the case in which the said

product  $P_2$  contained in compartment  $C_2$  forms a solid block with a central duct such that as it is translated, the surface of the brush (320) containing product  $P_1$  can also collect product  $P_2$  as the block comes into contact with the product  $P_2$ . It is also possible that the product  $P_2$  actually forms several stacks of blocks, so as to have several grades of solid products ( $P_2$ ,  $P_2'$ , etc.), if required.

The distributors-applicators (1) in Figures 6a to 7b correspond to cases in which the compartment  $C_2$  is accessed directly from the outside, the product  $P_2$  typically being non-fluid (powder block, cream, etc.) and in which the said application means forms a brush, the product  $P_1$  contained in product  $C_1$  being a fluid product.

The distributor - applicator (1) according to Figure 8 is of the "duo" type (1') and corresponds approximately to two applicators-distributors (1) assembled through a common bottom (25").

The distributor-applicator (1) according to Figures 9a to 9d comprises three compartments formed by a stack of add-on parts forming a receptacle (47), each compartment  $C_1$  possibly containing the corresponding typically non-fluid product  $P_i$ .

Distributors-applicators (1) according to Figures 10a to 11c comprise a compartment  $C_1$  provided with a sealing valve such that this type of distributor-applicator (1) is particularly suitable for packaging possibly very fluid products  $P_1$ .

Advantages of the invention

As is clear from the above, distributors-applicators (1) according to the invention considerably modify and broaden the possibilities of traditional distributors -  
5 applicators.

Firstly, distributors - applicators according to the invention are adapted to simultaneous packaging of all sorts of products with completely different rheological properties, from very fluid liquids to solids, and  
10 including paste or non-fluid creamy products, or by powders or spangles, all in the same packaging.

Moreover, in many cases distributors - applicators (1) according to the invention can obtain two different products on the application means (32) with a single  
15 gesture, in order to obtain a special make-up effect.

Finally, distributors - applicators (1) according to the invention open up an opportunity for a large number of new combinations, so that new needs can be satisfied simply by adapting the information divulged in this  
20 invention.



List of marks

	Distributor - applicator .....	1
	"Duo" distributor - applicator .....	1'
	Axial direction parallel to 21 .....	10
5	Body .....	2
	Cavity .....	20
	Compartments of 20 .....	200
	Axial direction parallel to 10 .....	21
	Head .....	22
10	Threaded neck .....	220
	Removable head .....	22'
	Opening .....	23
	Lateral skirt .....	24
	Top end .....	240
15	Bottom shoulder .....	241
	Click-fit ribs (grooves) .....	242
	Rim (threaded) .....	243
	Support rim .....	244
	Bottom .....	25
20	Removable bottom .....	25'
	Common bottom .....	25"
	Secondary cavity .....	26
	Complementary or free volume .....	27
	Applicator .....	3
25	Cap .....	30
	Rod .....	31
	Application means .....	32
	Brush (side bristles) ... 320, 320'	
	Brush (end bristles) .....	321

	Means of making 200 leak tight .....	33
	Separation means .....	4, 4'
	Central orifice .....	40
	Radial projection .....	41
5	Extended radial projection .....	42
	Inclined or vertical projection ....	43
	Perforated tubular central part ....	44
	Axial rods .....	440
	Axial spaces .....	441
10	Central duct .....	44'
	Flared upper part .....	440'
	Single-piece part with 2 .....	45
	Add-on part .....	46, 46'
	Radial part .....	460
15	Tubular part .....	461
	Lower tubular part .....	462
	Add-on part forming a receptacle ...	47
	Product .....	5
	Liquid or fluid product .....	50
20	Solid product (agglomerated) .....	51
	Annular body .....	510
	Central opening .....	511
	Non-agglomerated solid products ....	52
	Valve .....	6
25	Elastic lips .....	60
	Modular body portion .....	7, 7'
	Means of wiping 32 .....	8